

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

	Atty. Docket: KONGERSLEV=1
In re Application of: Leif KONGERSLEV) Confirmation No.: 6668
) Art Unit:
Appln. No.: 10/820,155) Examiner:
Filed: April 8, 2004) Washington, D.C.
For: TREATMENT OF SARS IN) October 6, 2004

INFORMATION DISCLOSURE STATEMENT [IDS]

Honorable Commissioner for Patents
U.S. Patent and Trademark Office
2011 South Clark Place
Customer Window, Mail Stop Missing Parts
Cristal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202

Sir:

This Information Disclosure Statement is submitted in accordance with 37 CFR §§1.97, 1.98, and it is requested that the information set forth in this statement and in the listed documents be considered during the pendency of the above-identified application, and any other application relying on the filing date of the above-identified application or cross-referencing it as a related application.

1. This IDS should be considered, in accordance with 37 CFR §1.97, as it is filed:

(Check one of the boxes A-D)

[] A. within three months of the filing date of the above-identified national application or within three months of the entry into the national stage of the above-identified international application.

- [X] B. before the mailing date of a first Office action on the merits or before the mailing of a first Office action after the filing of a Request for Continued Examination under 37 C.F.R. §1.114.
- [] C. after (A) and (B) above, but before final rejection or allowance, and Applicants have made the necessary certification (box "i" below) or paid the necessary fee (box "i" below).

(Check one of the boxes "i" and "ii" below:)

- [] i. Counsel certifies that, upon information and belief, each item of information listed herein was either
 - [] (a) first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS; or
 - [] (b) not cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of undersigned after making reasonable inquiry, was not known to any individual designated in §1.56(c) more than three months prior to the filing of this IDS.

(use one and delete other of following)

[] ii. A check (check no. _____) for the fee set forth in §1.17(p), presently believed to be \$180, is enclosed. If the enclosed payment is incorrect, please charge any additional fees or credit any overpayment to Deposit Account No. 02-4035.

- [] ii. Credit Card Payment Form, PTO-2038, is attached authorizing payment of the fee set forth in §1.17(p), presently believed to be \$180. If the enclosed payment is incorrect, please charge any additional fees or credit any overpayment to Deposit Account No. 02-4035.
- [] D. after (A), (B) and (C) above, but before payment of the issue fee: Applicant(s) state as follows under 37 CFR §1.97(e) for consideration of this IDS, that, upon information and belief, each item of information listed herein was either

(Check one of the boxes "a" and "b" below)

- [] (a) first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS; or
- [] (b) was not cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the undersigned after making reasonable inquiry, was not known to any individual designated in §1.56(c) more than three months prior to the filing of this IDS.

(use one and delete other of following and this note) A check (check no. _____) for/ Credit Card Payment Form, PTO-2038, is attached authorizing payment of the fee set forth in §1.17(p), presently believed to be \$180 is enclosed. If the enclosed payment is incorrect, please charge any additional fees or credit any overpayment to Deposit Account No. 02-4035.

2. In accordance with 37 CFR §1.98, this IDS includes a list (e.g., Form PTO/SB/08A) of all patents, publications, or other information submitted for consideration by the office, either incorporated into this IDS or as an attachment hereto. A copy of each document listed is attached, except as explained below.

(check boxes A, B and/or C and fill in blanks, if appropriate)

- [] A. Document(s) ______ is (are) deemed substantially cumulative to document(s) ______, and, in accordance with §1.98(c), only a copy of each of the latter documents is enclosed.
- [] B. Certain documents were previously cited by or submitted to the Office in the following prior application(s), which are relied upon under 35 U.S.C. 120:

(insert serial numbers and filing dates of prior applications)

Applicant(s) identifies these documents by attaching hereto copies of the forms PTO-892 and PTO-1449 (or PTO/SB/08A) from the files of the prior application(s) or a fresh PTO-1449 (or PTO/SB/08A) listing these documents, and request that they be considered and made of record in accordance with §1.98(d). Per 37 CFR §1.98(d), copies of these documents need not be filed in this application.

[] C. Document(s) _______ is (are) U.S. patent(s) and/or published application(s). As this is a U.S. application filed after June 30, 2003, or an entry into national stage under 35 USC §371 after June 30, 2003, the requirement to file copies of such U.S. patents or published applications has been waived. (Office of Patent Legal Administration - Pre O.G. Notice of July 11, 2003).

	3.	Document is (are) not in the
English :	langu	age. In accordance with §1.98(c), Applicant(s)
states:		
	[]	An English translation of each document
		(or of the pertinent portions thereof), or a copy
		of each corresponding English-language patent or
		application, or English-language abstract (or
		claim) is enclosed.
	[]	A concise explanation of the relevance of
		document(s) is found in the attached
		search report
		(see reply to Comment 68 in the preamble to the
		final rules; 1135 OG 13 at 20).
	[]	A concise explanation of the relevance of
		document(s) is set forth as follows:
	/ i	nsert concise explanation of relevance)
	[]	A concise explanation of the relevance of
		document can be found on page $\underline{1}$ of
		the specification.
	[]	A concise explanation of document(s)
		can be found on the attached sheet.
	4.	No explanation of relevance is necessary for
documents	s in	the English language (see reply to Comments 67 and
68 in the	e prea	amble to the final rules; 1135 OG 13 at 20).

(insert other information)

being provided for

the

5. Other information

examiner's consideration follows:

6. In accordance with 37 CFR §§1.97(g) and (h), the filing of this IDS should not be construed as a representation that a search has been made or that information cited is, or is considered to be, material to patentability as defined in §1.56

(b), or that any cited document listed or attached is (or constitutes) prior art. Unless otherwise indicated, the date of publication indicated for an item is taken from the face of the item and Applicant(s) reserves the right to prove that the date of publication is in fact different.

Respectfully submitted,

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Substitute for form 1449A/PTO

Complete if Known 10/820,155 Application Number April 8, 2004 Filing Date First Named Inventor Leif KONGERSLEV Not Yet Known Group Art Unit Not Yet Known **Examiner Name** KONGERSLEV Attorney Docket Number

(use as many sheets as necessary) Sheet

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, Exami Cite magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where T² published Initial Aittoniemi, J., Miettinen, A., Laine, S., Sinisalo, M., Laippala, P., Vilpo, L, Vilpo, J. (1999), Opsonising AA mmunoglobulins and mannan-binding lectin in chronic lymphocytic leukemia, Leuk Lymphoma Jul;34(34):3815 Christiansen, O.B., Kilpatrick, D.C., Souter, V., Varming, K., Thiel, S., Jensenius, J.C. (1999) Mannan-AB binding lectin deficiency is associated with unexplained recurrent miscarriage. Scand. J. Immunol., 49, van Emmerik, LC, Kuijper, EJ, Fijen, CAP, Dankert, J, and Thiel, S (1994) Binding of mannan-binding AC protein to various bacterial pathogens of meningitis. Clin.Exp.Immunol. 97:411-416. ΑD Fischer, PB, Ellerman-Eriksen, S, Thiel, S, Jensenius, JC, and Mogensen, SC (1994) Mannan-binding protein and conglutinin mediate enhancement of herpes simplex virus type-2 infection in mice. Scand J Immunol 39:439-445. Garred, P, Harboe, M, Oettinger, T, Koch, C, and Svejgaard, A (1994) Dual role of mannanbinding ΑE protein in infections: Another case of heterosis? Eur.J.Immunogen. 21:125-131. Garred P, Madsen HO, Hofmann B and Svejgaard A (1995) Increased frequency of homozygosity of AF abnormal mannan binding protein alleles in patients with suspected immunodeficiency. Lancet, 346: Hoal-Van Helden EG, Epstein J, Victor TC, Hon D, Lewis LA, Beyers N, Zurakowski D, Ezekowitz AB, Van Helden PD (1999) Mannose-binding protein B allele confers protection against tuberculous meningitis. Pediatr Res 45:459-64 Holmskov, U., Malhotra, R., Sim, R.B., and Jensenius, J.C. (1994) Collectins: collagenous C-type lectins of the innate immune defense system. Immunol. Today 15:67-74. Holmskov, U., Thiel, S., Jensenius, J.C. (2003) Collectins and ficolins: Humoral lectins of the innate ΑI immune defense. Annu. Rev. Immunol. 21:547-578. Jack DL, Dodds AW, Anwar N, Ison CA, Law A, Frosch M, Turner MW and Klein NJ (1998) Activation ΑJ of complement by Mannose-binding lectin on isogenic mutants of Neisseria meningitidis serogroup B. J Immunol 160: 1346-1353 Janeway CA, Travers P, Walport M and Capra JD (1999) Immunobiology, the immune system in AΚ health and disease, Immuno Biol, Fourth Edition, Churchill Livingstone. ΑL Kilpatrick, D.C. (2002) Mannan-binding lectin: clinical significance and applications. Biochim. Biophys. Acta 1572:401-413.Turner, M.W. (1996) Mannose-binding lectin: the pluripotent molecule of the innate immune system. Immunol.Today 17:532-540. Lehrnbecher T, Venzon D, de Haas M, Chanock SJ, Kuhl J. (1999) Assessment of measuring AΜ circulating levels of interleukin6, interleukin8, Creactive protein, soluble Fc gamma receptor type III, and mannosebinding protein in febrile children with cancer and neutropenia. Clin Infect Dis, Aug;29(2):4149. Lipscombe, R.J., Sumiya, M., Summerfield, J.A. & M.W. Turner (1995) Distinct physicochemical ΑN characteristics of human mannose-binding protein expressed by individuals of differing genotype. Immunology **85**:660-667. Lu, J., Thiel, S., Wiedemann, H., Timpl, R. & K.B.M. Reid (1990) Binding of the pentamer/hexamer ΑO forms of mannan-binding protein to zymosan activates the proenzyme C1r₂C1s₂ complex, of the classical pathway of complement without involvement of C1q. J. Immunol. 144:2287-2294.

^{*} EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \(^1\) Applicant's unique citation designation number (optional). \(^2\) See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. \(^3\) Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). \(^4\)For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \(^5\) Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. \(^6\) Applicant is to place a check mark here if English language Translation is attached.

		number.		
AP	Madsen, H.O., Garred, P., Kurtzhals, J.A., Lamm, L.U., Ryder, L.P., Thiel, S., and Svejgaard, A. (1994) A new frequent allele is the missing link in the structural polymorphism of the human mannan-binding protein. Immunogenetics 40:37-44.			
AQ	Matsushita, M. and Fujita, T (1992). Activation of the classical complement pathway by mannose-binding protein in association with a novel C1s-like serine protease. <u>J.Exp.Med</u> . 176:1497-1502.			
AR	Miller, M.E., Seals, J., Kaye, R., and Levitsky, L.C. (1968) A familial, plasma-associated defect of phagocytosis. A new case of recurrent bacterial infections. The.Lancet :60-63.			
AS	Nielsen, S.L., Andersen, P.L., Koch, C., Jensenius, J.C., and Thiel, S. (1995) The level of the serum opsonin, mannan-binding protein in HIV-1 antibody-positive patients. Clin. Exp. Immunol. 100:219-222.			
AT	Pizzo, PA (1993), Management of fever in patients with cancer and treatment-induced neutropenia, N Eng J Med, 328, 1323-1332.			
AU	Sastry, K., Herman, G.A., Day, L., Deignan, E., Bruns, G., Morton, C.C. & R.A.B. Ezekowitz (1989) The human mannose-binding protein gene. <u>J. Exp. Med</u> . 170 :1175-1189			
AV	Stover CM, Thiel S, Thelen M, Lynch NJ, Vorup-Jensen T, Jensenius JC and Schwaeble WJ (1999) Two constituents of the initiation complex of the mannan-binding lectin activation pathway of complement are encoded by a single structure gene. <u>J Immunol</u> 162: 3481-3490			
AW	Summerfield JA, Ryder S, Sumiya M, Thursz M, Gorchein A, Monteil MA and Turner MW (1995) Mannose binding protein gene mutations associated with unusual and severe infections in adults. Lancet 345: 886-889			
AX	Summerfield JA, Sumiya M, Levin M and Turner MW (1997) Association of mutations in mannose-binding protein gene with childhood infection in consecutive hospital series. <u>BioMed J</u> 314: 1229-1232			
AY	Super, M., Thiel, S., Lu, J., Levinsky, R.J., and Turner, M.W. (1989) Association of low levels of mannan-binding protein with a common defect of opsonisation. <u>Lancet</u> 2:1236-1239.			
AZ	Thiel S, Vorup-Jensen T, Stover CM, Schwaeble W, Laursen SB, Poulsen K, Willis AC, Eggleton P, Hansen S, Holmskov U, Reid KB and Jensenius JC (1997) A second serine protease associated with mannan-binding lectin that activates complement. Nature , 386(6624): 506-510			
ВА	Thiel S, Holmskov U, Hviid L, Laursen SB and Jensenius JC (1992) The concentration of the C-type lectin, mannan-binding protein, in human plasma increases during an acute phase response. Clin Exp Immunol 90: 31-35			
ВВ	Furner, M.W. (1996) Mannose-binding lectin: the pluripotent molecule of the innate immune system. Immunol Today 17:532-540.			
ВС	Valdimarsson H, Stefansson M, Vikingsdottir T, Arason GJ, Koch C, Thiel S and Jensenius JC (1998) Reconstitution of opsonizing activity by infusion of mannan-binding lectin (MBL) to MBL-deficient humans. Scand Journal of Immunology 48:116-123.			
BD	Weis WI, Taylor ME and Drickamer K (1998) The C-type lectin superfamily in the immune system. Immunological Reviews 163: 19-34			
Examine Signature		Date Considered		

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¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.